

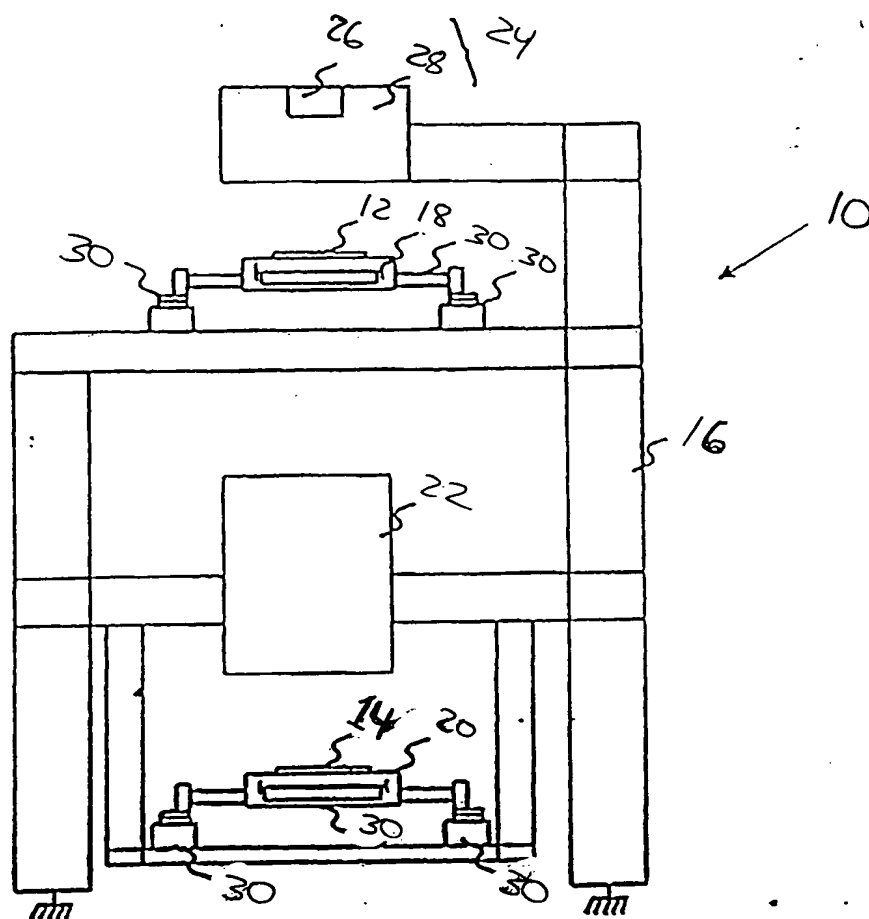
[illegible]

FIG. 1  
Prior Art

FIG. 2

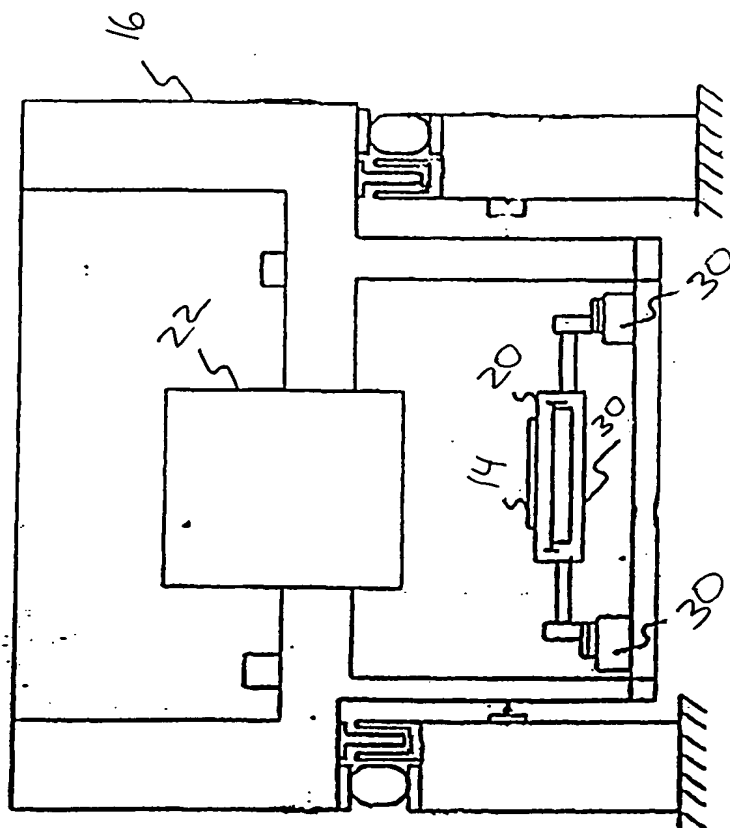
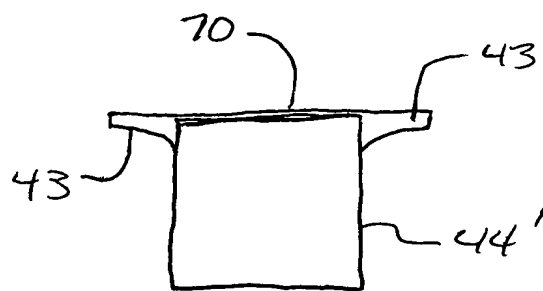
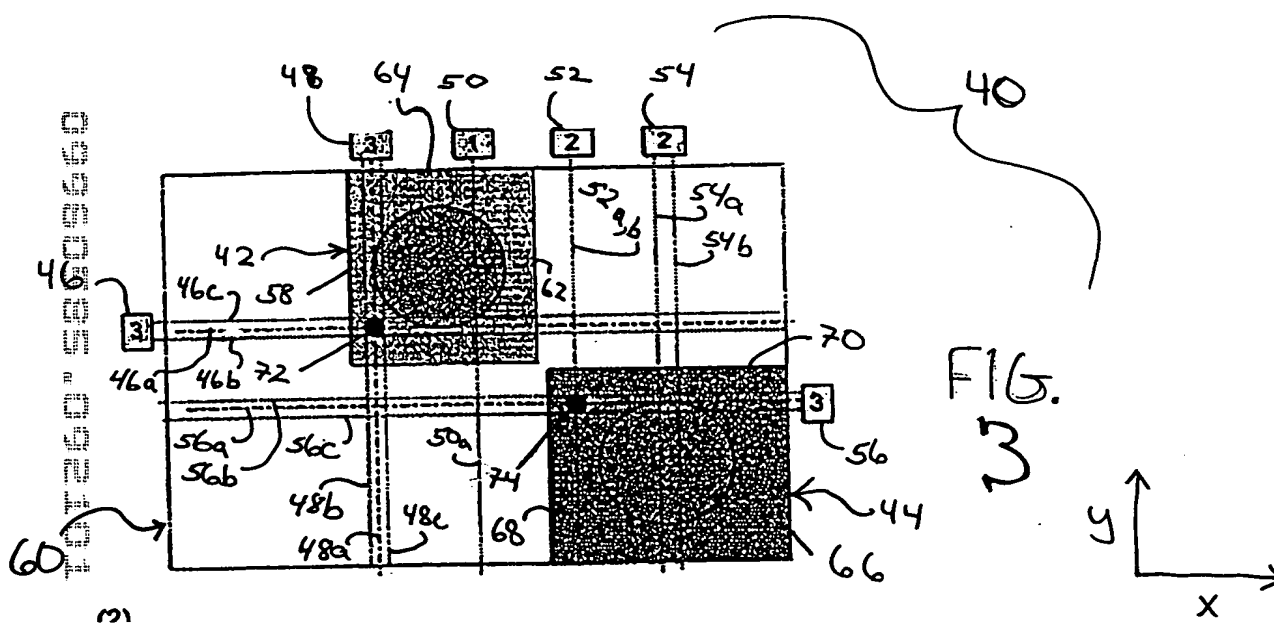


FIG. 2  
Prior Art



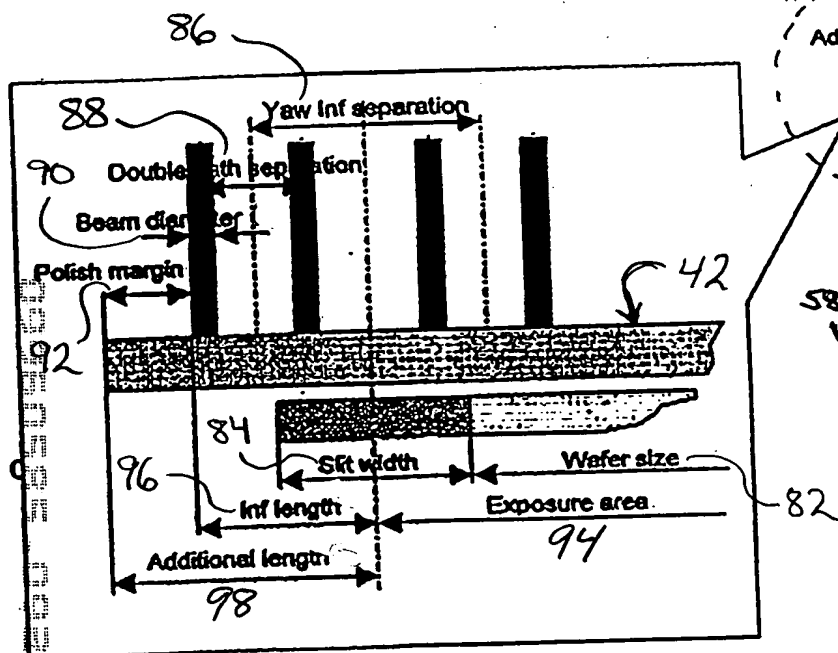


FIG. 46

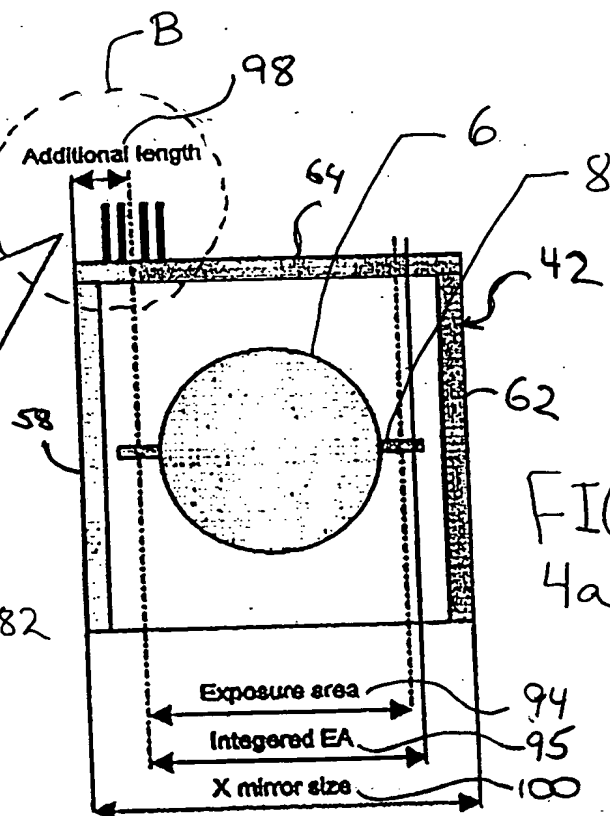
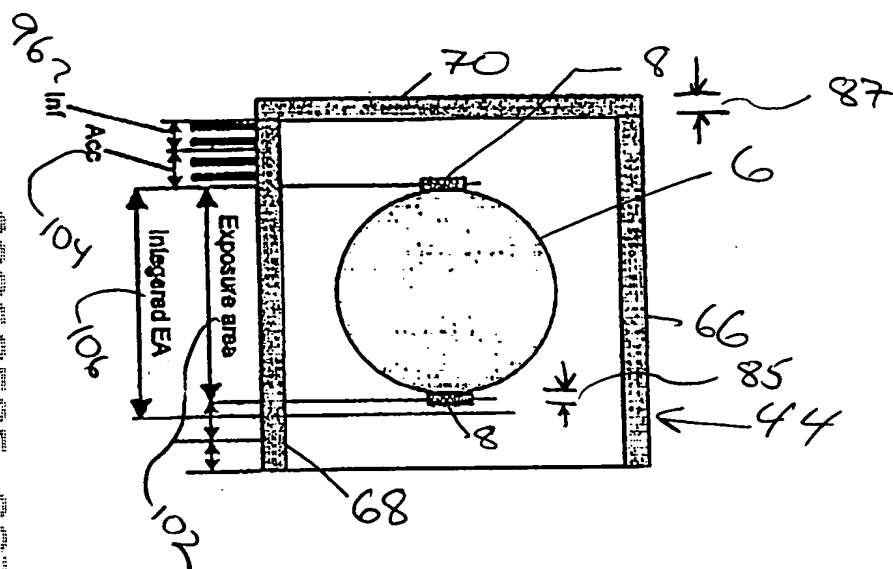


FIG. 4a

FIG. 5

FIG. 6



Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

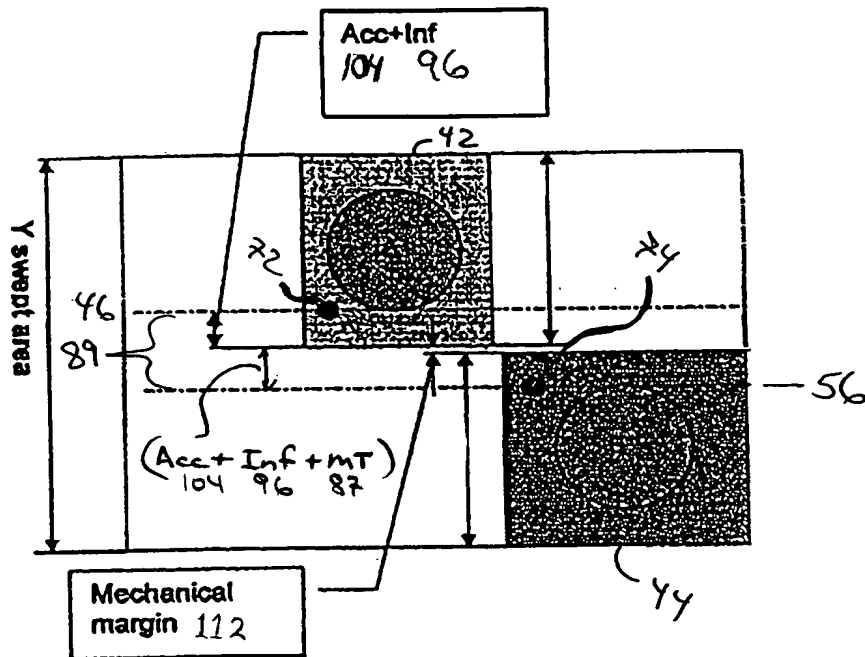


FIG. 7

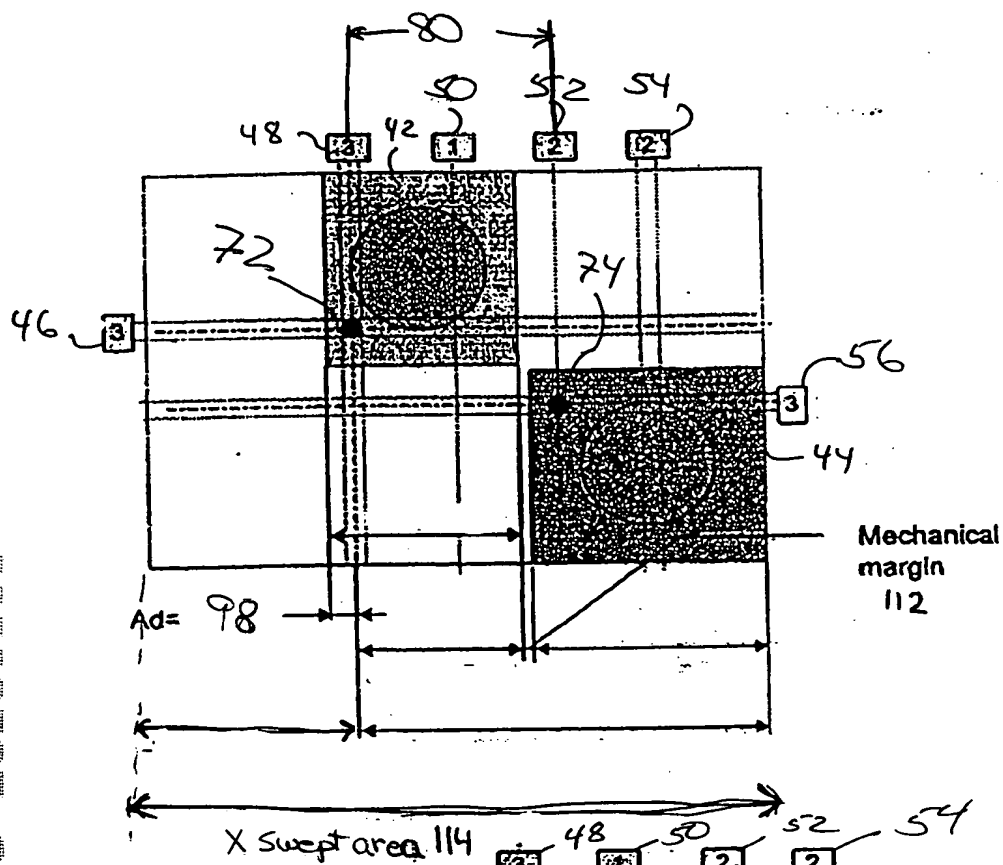
[illegible]

FIG. 8

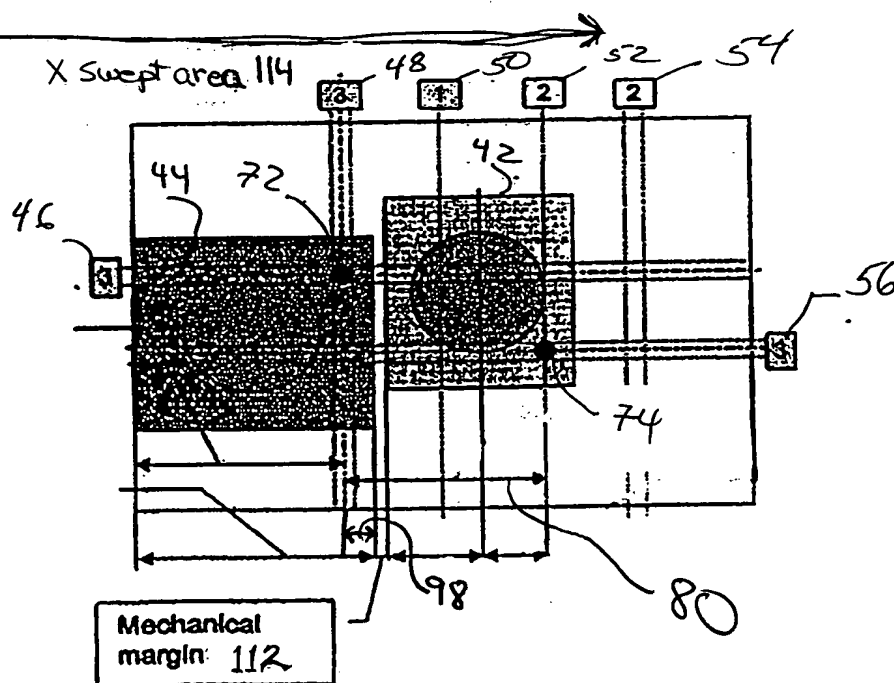


FIG. 9



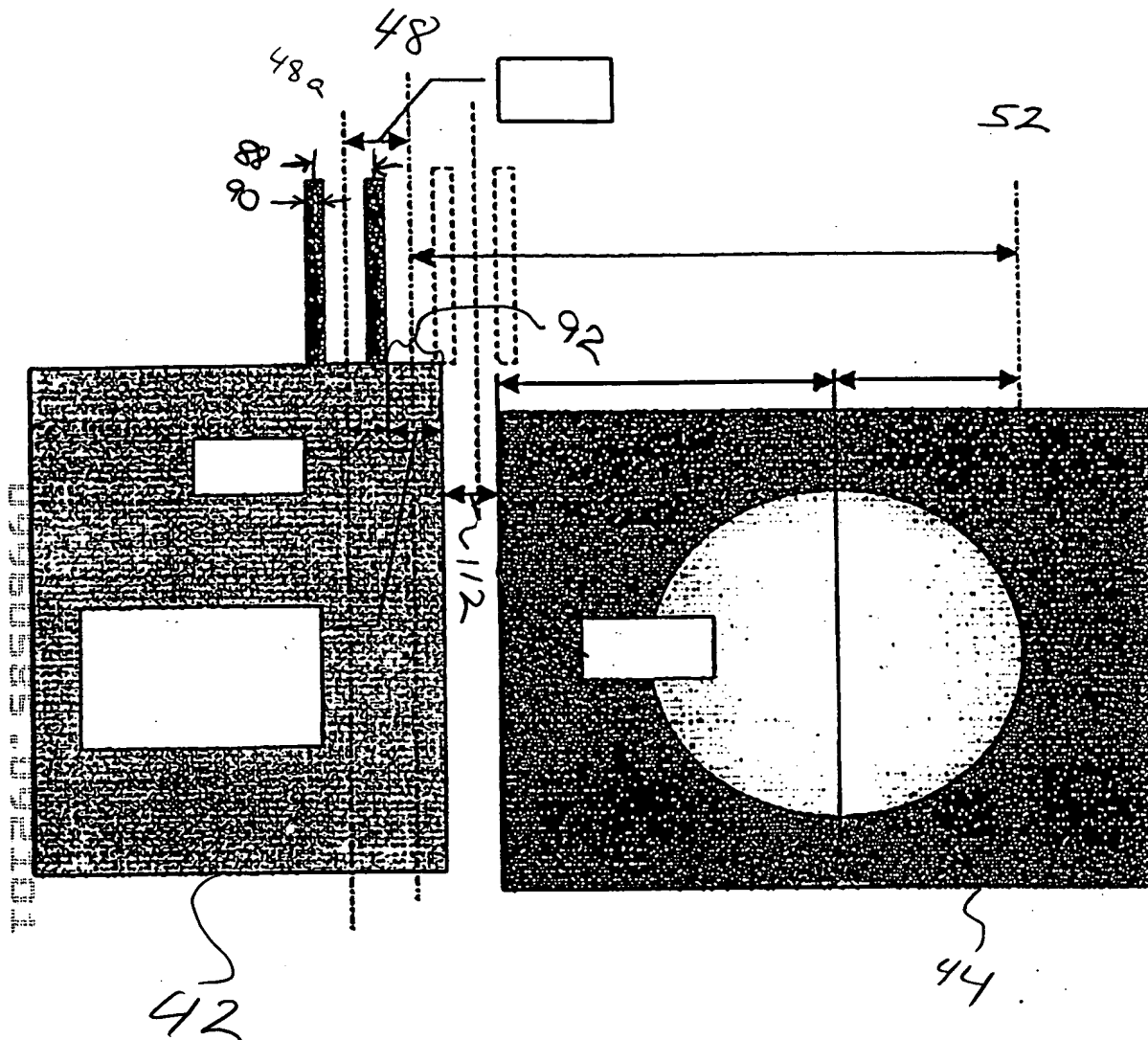


FIG. 10

Technical drawing of a mechanical assembly, showing three views: Top View, Side View, and Front View. The drawing includes dimensions and labels for various parts and features.

**Top View:**

- Overall dimensions: 150 x 25/2 and 382 1/2.
- Central hole diameter: 125.
- Labels: PL 48, 80, 52, 54, 88, 91, 82, 42, 84, 112.

**Side View:**

- Overall dimensions: 52, 54, 88, 91, 82.
- Label: FIA.

**Front View:**

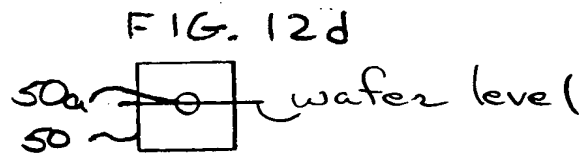
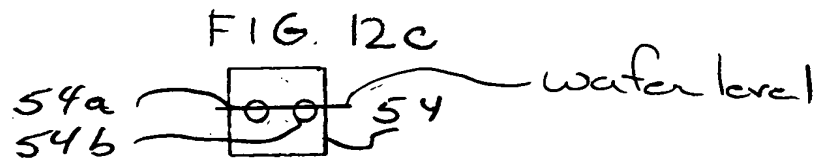
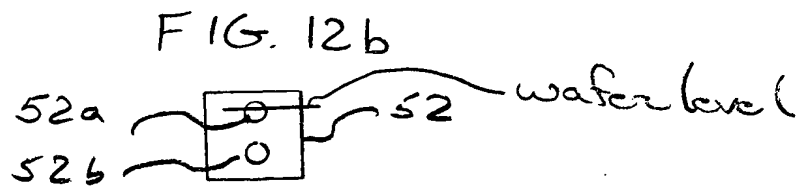
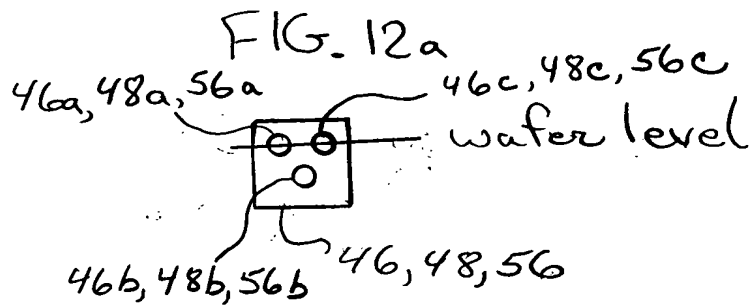
- Overall dimensions: 82, 84, 112.

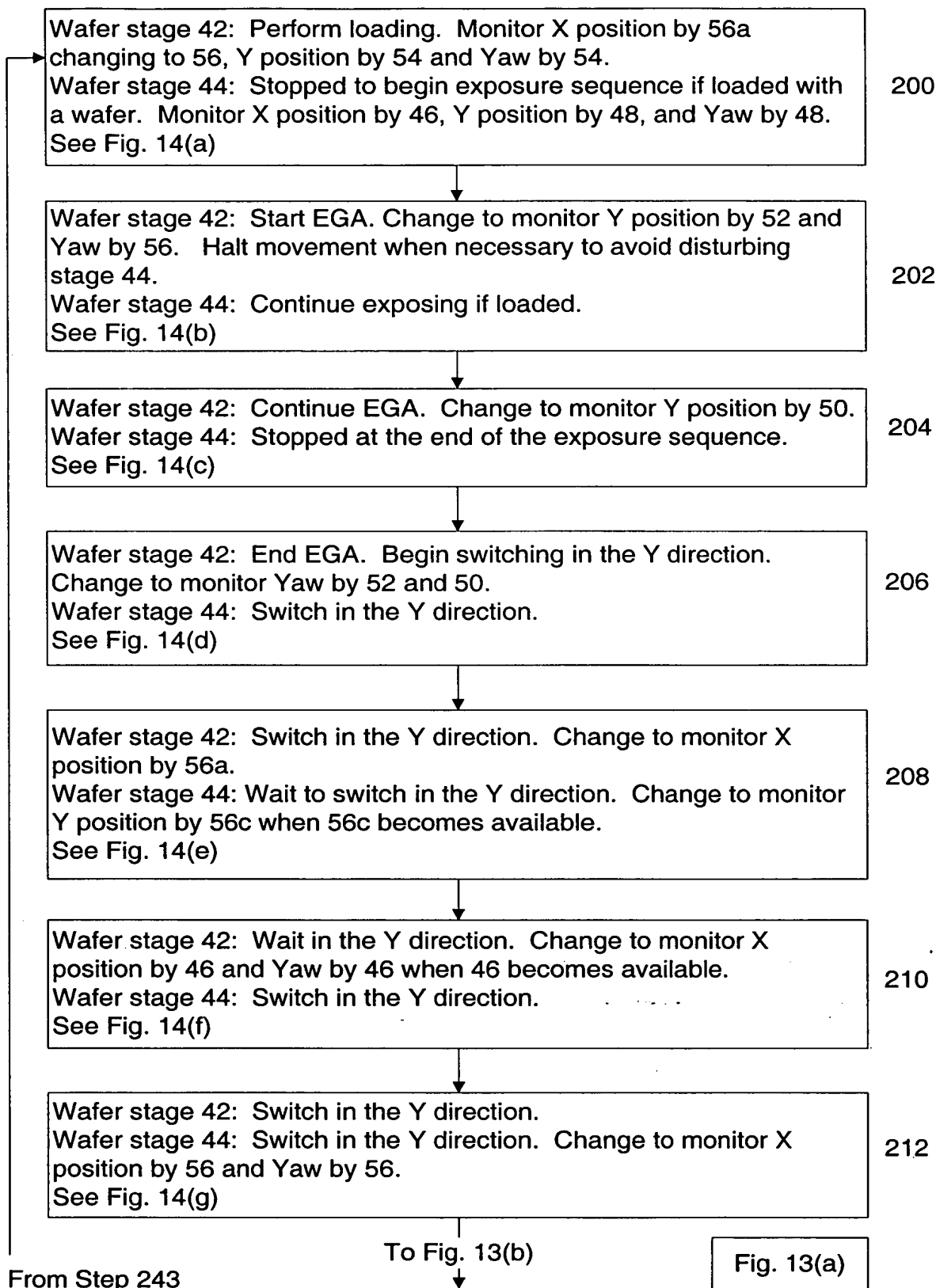
**Loading position:**

The drawing is labeled "Loading position" at the bottom.

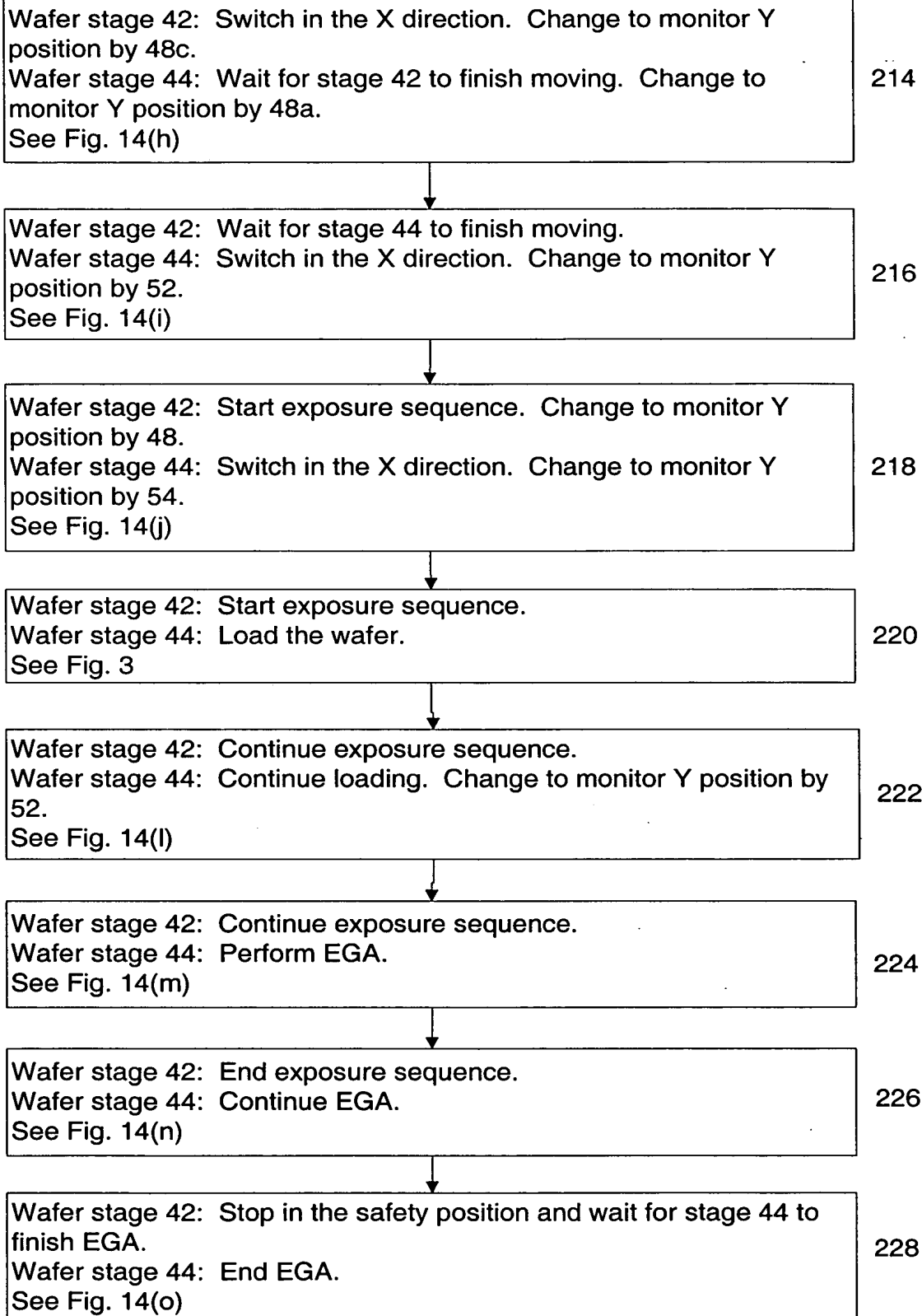
FIG. 11

### Loading position





To Fig. 13(a)  
and step 200



To Fig. 13(c)

Fig. 13(b)

To Fig. 13(a)  
and step 200

From Fig. 13(b) and step 228

Wafer stage 42: Stop in the safety position.  
Wafer stage 44: Switch in the X direction.  
See Fig. 14(p)

230

Wafer stage 42: Switch in the X direction. Change to monitor Y position by 50.  
Wafer stage 44: Wait for 48a to become available to control Y position. Resume switching in the X direction.  
See Fig. 14(q)

232

Wafer stage 42: Continue switching in the X direction.  
Wafer stage 44: Wait in the switch X/wait position. Change to monitor Y position by 48a.  
See Fig. 14(r)

234

Wafer stage 42: Continue switching in the X direction. Change to monitor Y position by 52.  
Wafer stage 44: Wait in the switch X/wait position. Change to monitor Y position by 48 and Yaw by 48.  
See Fig. 14(s)

236

Wafer stage 42: Continue switching in the X direction. Change to monitor Y position by 54 and Yaw by 54.  
Wafer stage 44: Wait in the switch X/wait position.  
See Fig. 14(t)

238

Wafer stage 42: Switch in the Y direction. Change to monitor X position by 56a.  
Wafer stage 44: Switch in the Y direction. Change to monitor X position by 56c.  
See Fig. 14(u)

240

To Fig. 13(d)

FIG 13(c)

200 202 204 206 208 210 212 214 216 218 220 222 224 226 228 230 232 234 236 238 240

To Fig. 13(a)  
and step 200

From Fig. 13(c) and step 240

Wafer stage 42: Wait in the switchY/wait position then move to the loading position.  
Wafer stage 44: Continue switching in the Y direction and attain the position to begin the exposure sequence. Change to monitor X position by 46.  
See Fig. 14(v)

242

Yes  
Continue to  
process more  
wafers ?  
No

243

Wafer stage 42: Unload but do not reload. Change to monitor X position by 56.  
Wafer stage 44: Start exposure sequence.  
See Fig. 14(a)

244

Wafer stage 42: Move through the EGA movements without performing EGA, halting to avoid disturbing stage 44. Change to monitor Y position by 52 and Yaw by 56.  
Wafer stage 44: Continue the exposure sequence.  
See Fig. 14(b)

246

Wafer stage 42: Change to monitor Y position by 50.  
Wafer stage 44: Stop at the end of the exposure sequence.  
See Fig. 14(c)

248

Wafer stage 42: Switch in the Y direction. Change to monitor Yaw by 52 and 50.  
Wafer stage 44: Switch in the Y direction.  
See Fig. 14(d)

250

To Fig. 13(e)

Fig. 13(d)

From Fig. 13(d)

Wafer stage 42: Switch in the Y direction. Change to monitor X position by 56a.  
Wafer stage 44: Pause and wait for 56c to become available to control X position.  
See Fig. 14(e)

252

Wafer stage 42: Pause and wait for 46 to become available to control X position.  
Wafer stage 44: Switch in the Y direction.  
See Fig. 14(f)

254

Wafer stage 42: Switch in the Y direction.  
Wafer stage 44: Switch in the Y direction. Change to monitor X position by 56 and Yaw by 56.  
See Fig. 14(g)

256

Wafer stage 42: Switch in the X direction. Change to monitor Y position by 48c.  
Wafer stage 44: Pause and wait for stage 42 to stop moving. Change to monitor Y position by 48b.  
See Fig. 14(h)

258

Wafer stage 42: Pause switching in the X direction and wait for stage 44 to stop moving.  
Wafer stage 44: Switch in the X direction. Change to monitor Y position by 52.  
See Fig. 14(i)

260

Wafer stage 42: Change to monitor Y position by 48.  
Wafer stage 44: Remove exposed wafer. Change to monitor Y position by 54.  
See Fig. 14(j)

262

Fig. 13(e)

End Process



TOP SECRET

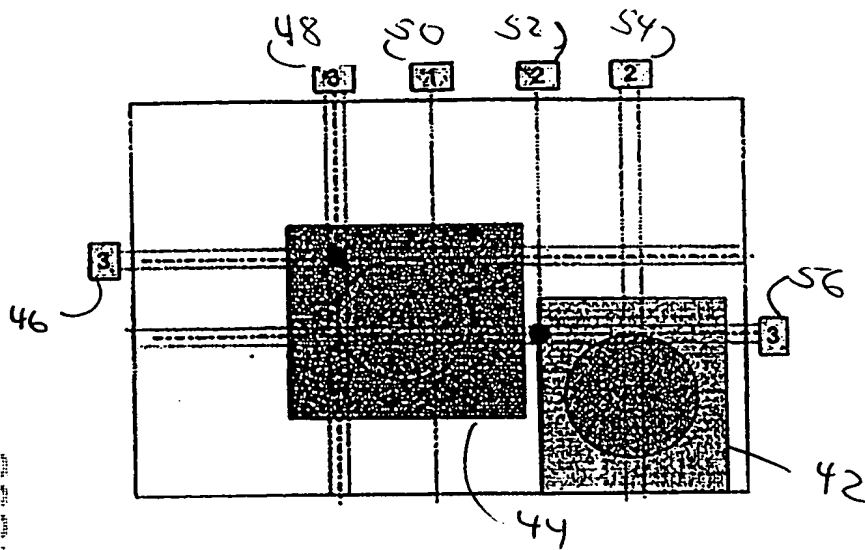


FIG.

14(a)

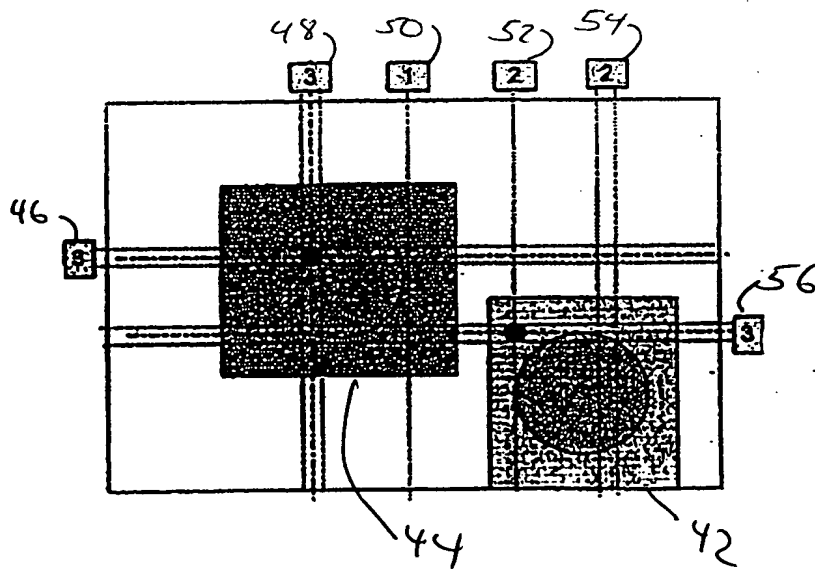


FIG.

14(b)

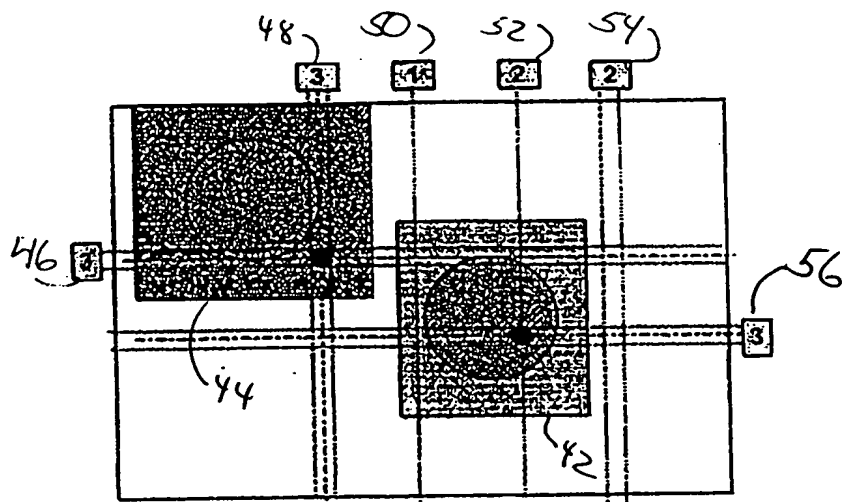


FIG.  
14(c)

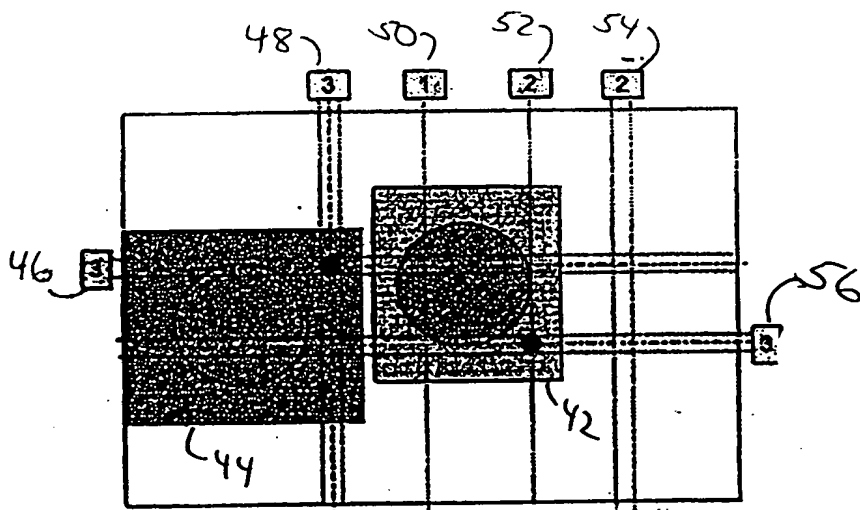


FIG.  
14(d)

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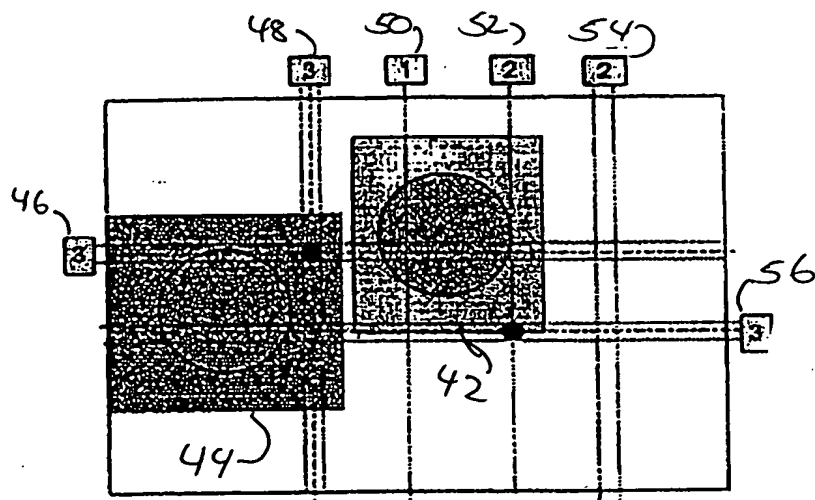


FIG.  
14(e)

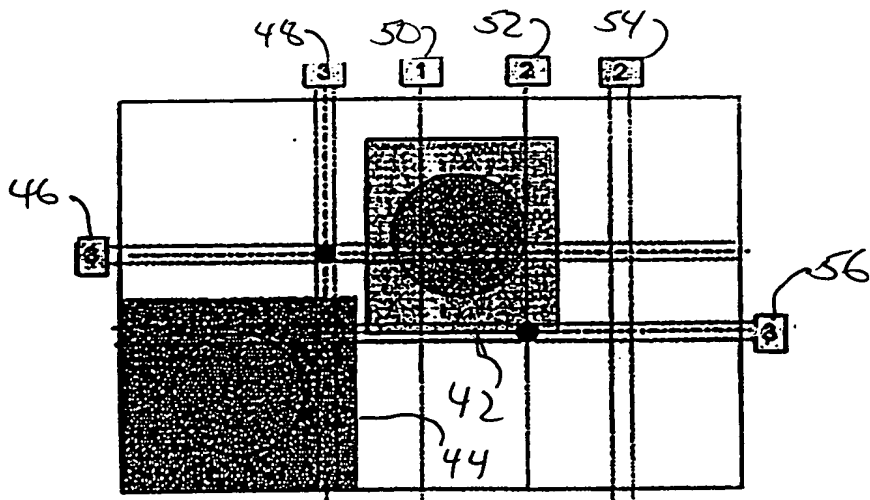


FIG.  
14(f)

FIG. 14(e)



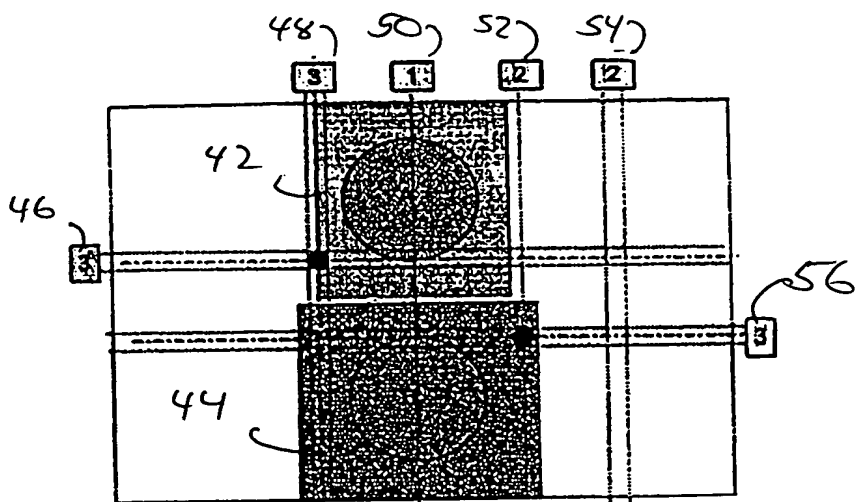


FIG.  
14(i)

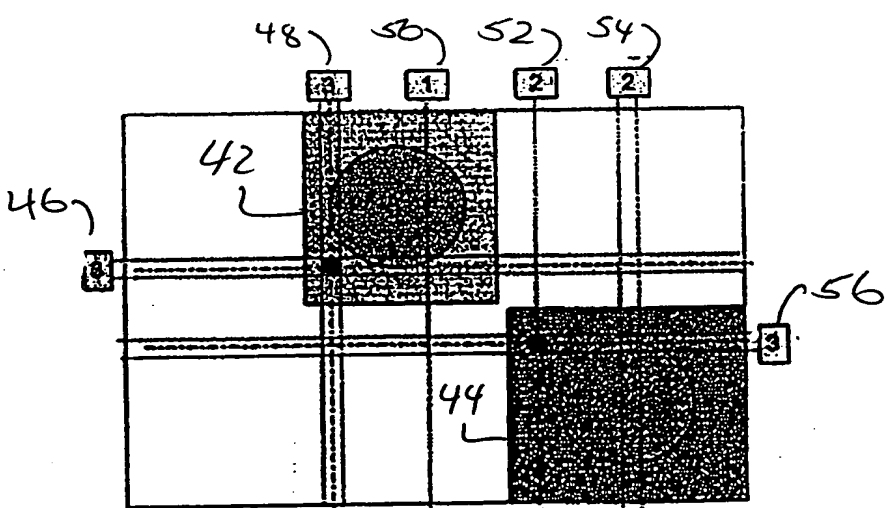
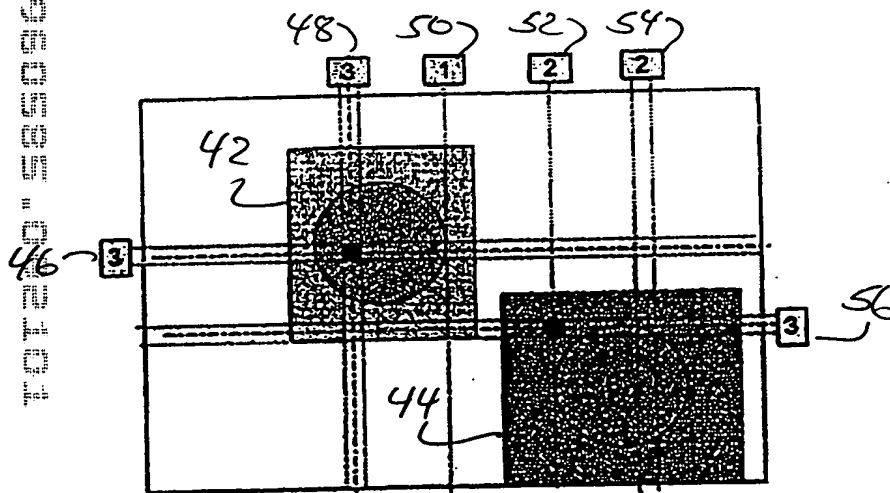
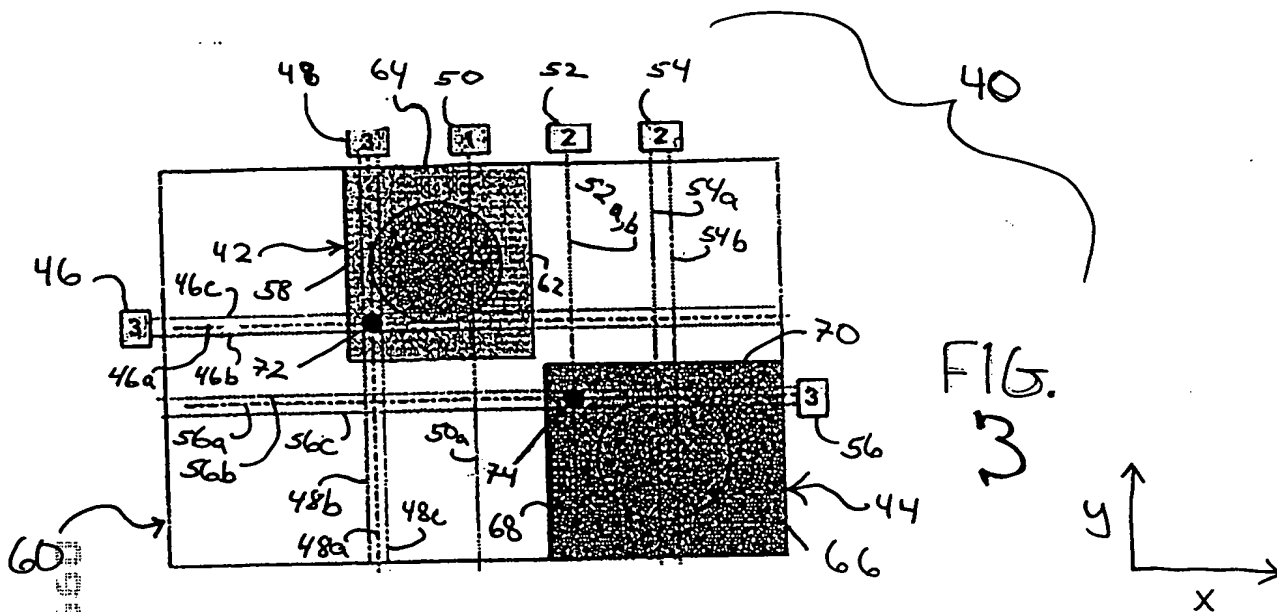
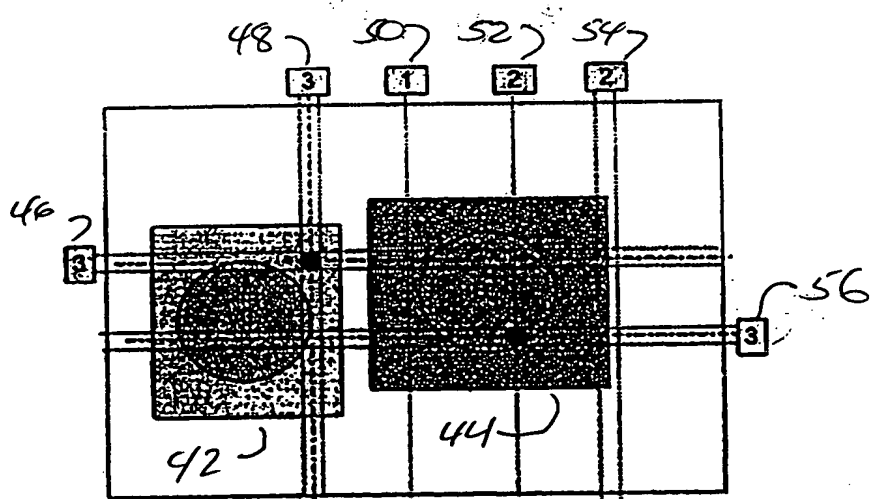
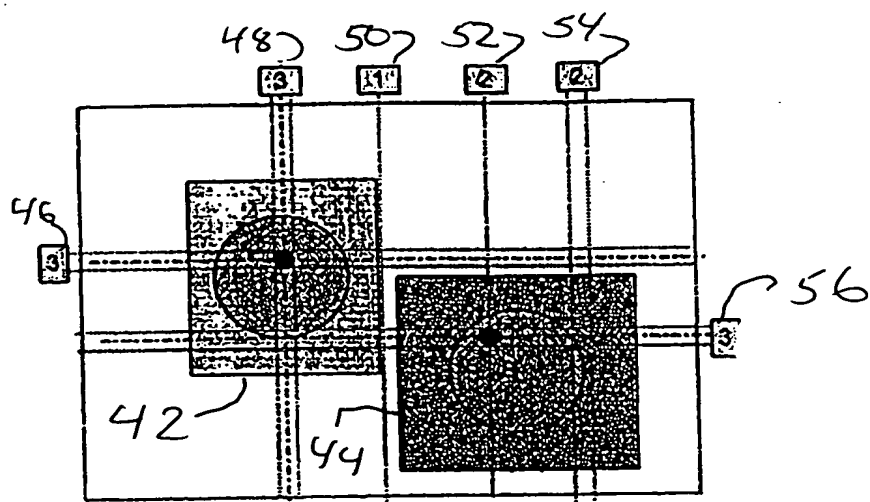


FIG.  
14(j)





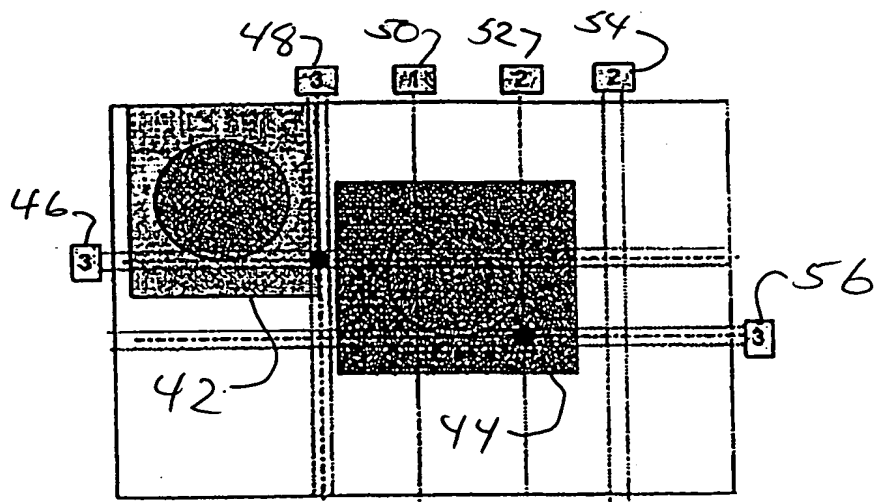


FIG.  
14(O)

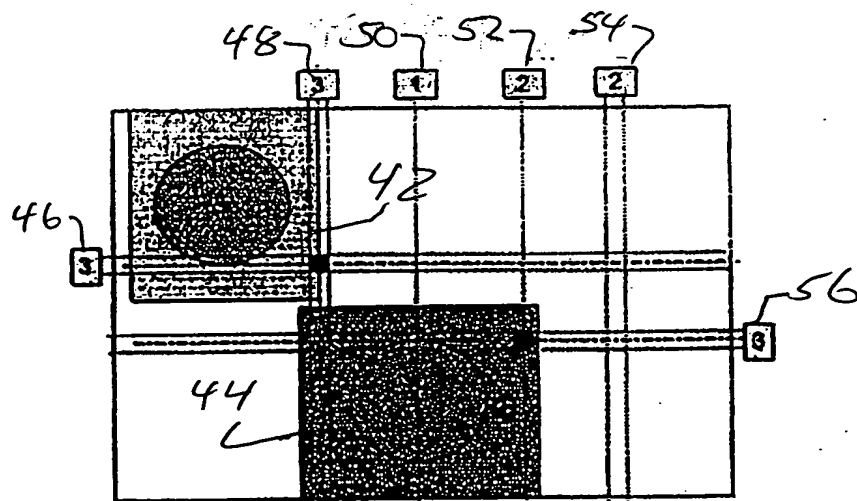


FIG.  
14(P)



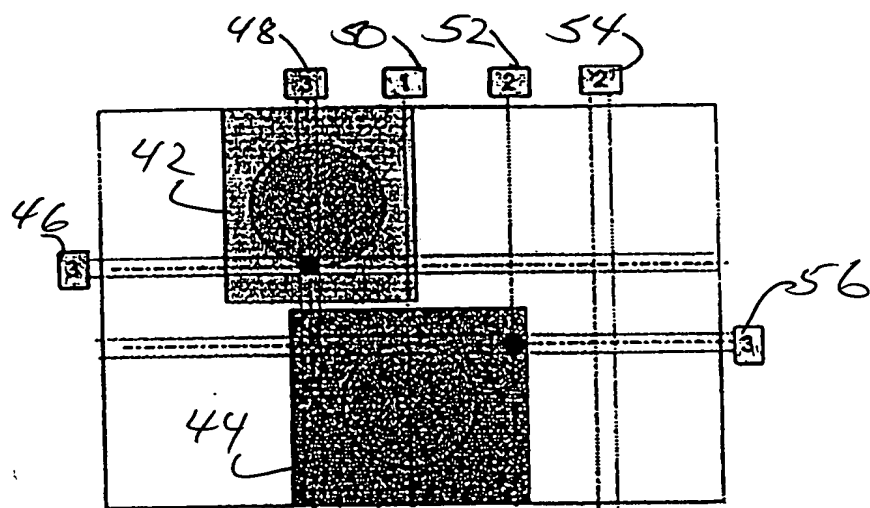


FIG.  
14(g)

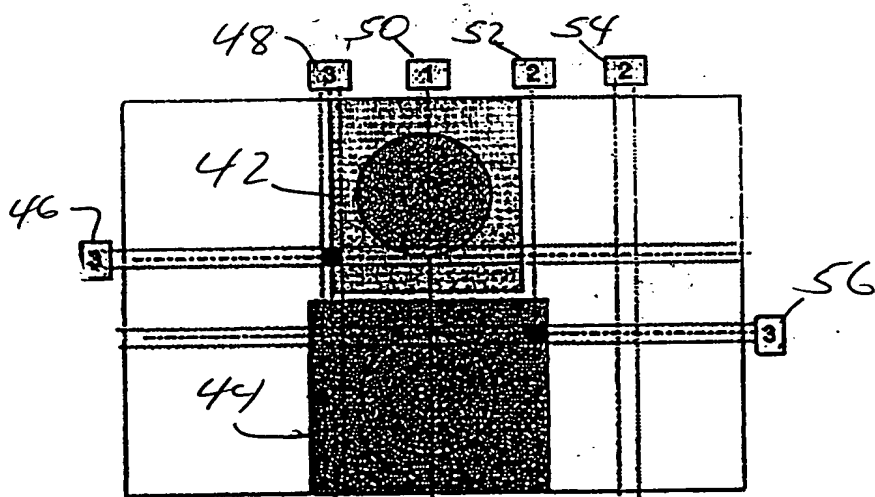


FIG.  
14(r)

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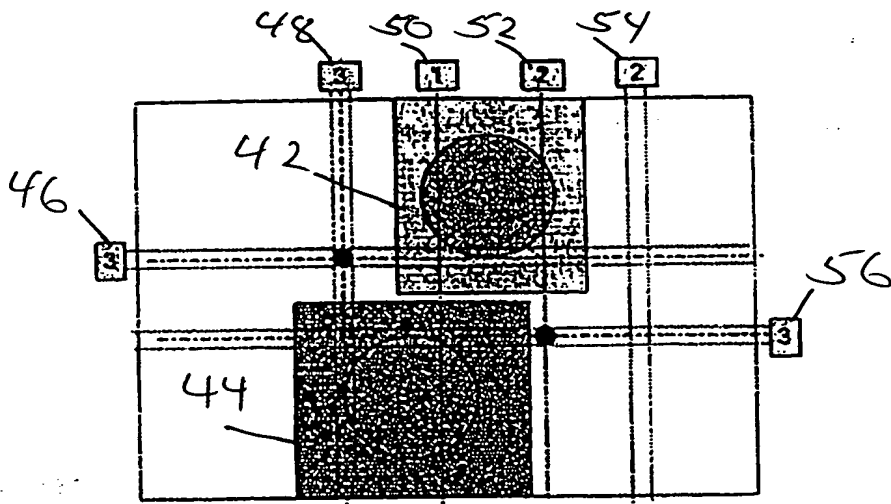


FIG.  
14(s)

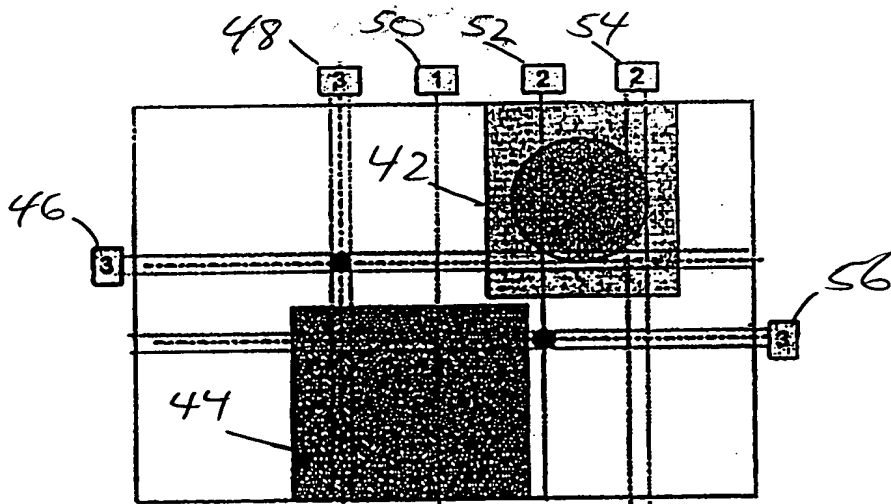


FIG.  
14(t)

09960805 002101

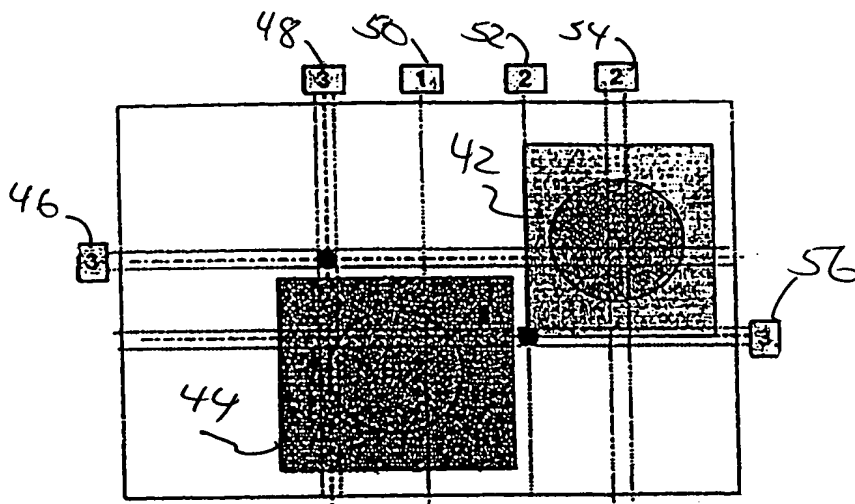


FIG.  
14(u)

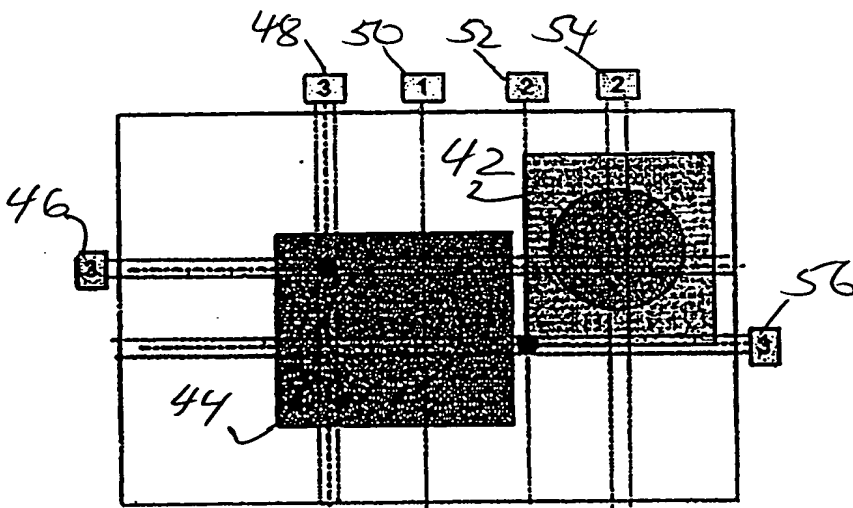


FIG.  
14(v)

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